

PORTLAND URBAN DISTRICT COUNCIL

Report of the Medical Officer of Health for the year 1900.

PORTLAND

February 1901.

I have the honour to submit my report for the year 1900.

POPULATION. The perplexing question of what is the population will soon be settled for us, as the next census is drawing near. I have frequently had occasion in my reports to point out the difficulties which lie in the way of an accurate estimate from year to year, and there can be no doubt that if the census were taken every five years instead of every ten years, health statistics generally would be much more valuable and reliable than they are at present. My estimate of the population of Portland in the middle of 1900 is 12,000.

AREA The area of the district is 2897 acres.

BIRTH-RATE. The births registered were distributed as follows-

January	21
February	26
March	21
April	22
May	14
June	25
July	20
August	22
September	19
October	25
November	20
December	21

268
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Of these, 153 were males, and 115 were females. The birth-rate resulting is 22.3. The average birth-rate for the last ten years is

23.01

DEATH-RATE. The deaths registered in 1900 were distributed as follows;-

January	22
February	15
March	15
April	14
May	11
June	14
July	12
August	13
September	13
October	15
November	14
December	17
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Total	176
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From this total two deaths have to be deducted before calculating the death-rate; one a case of drowning in a man of 55 years, captain of the smack 'Evolution'; the other, the 4th Lieutenant of H.M.S. 'Majestic', who died from injuries received on board ship. The remaining 174 deaths give a death-rate of 14.5 per 1000. The average death-rate for the last ten years is 12.225.

The chief causes of death are as enumerated below.-

Measles	.	.	.	.	.	.	9 deaths
Whooping-cough	.	.	.	.	.	.	4 ..
Diphtheria	.	.	.	.	.	.	2 ..
Enteric Fever	.	.	.	.	.	.	3 ..
Influenza	.	.	.	.	.	.	4 ..
Erysipelas	.	.	.	.	.	.	4 ..
Puerperal Fever	.	.	.	.	.	.	1 ..
Diarrhoea	.	.	.	.	.	.	11 ..
Enteritis	.	.	.	.	.	.	6 ..
Phthisis	.	.	.	.	.	.	9 ..
Other tubercular diseases	.	.	.	.	.	.	8 ..
Cancer	.	.	.	.	.	.	9 ..
Bronchitis, Pneumonia & Pleurisy	.	.	.	.	.	.	11 ..
Heart diseases	.	.	.	.	.	.	26 ..
Nervous diseases	12 ..
All other diseases	46 ..
Accidents	7 ..
Suicides	2 ..

							Total 174 ..
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The age distribution is as follows-

Under 1 year	48 deaths
1 and under 5 years	14 ..
5 15 ..	2 ..
15 25 ..	15 ..
25 65 ..	56 ..
65 years and upwards	29 ..

Total at all ages	174 deaths.

INFANT-MORTALITY. This means the number of children dying under the age of one year out of every thousand births registered during the year. For some years past this has been somewhat excessive in Portland, and is chiefly to be attributed to improper feeding, as I have had occasion to mention in former reports. In some parts of the country County Councils have taken up the matter, and tried to meet it by the issue of sterilised milk at, as nearly as possible, cost price. I have no hesitation in saying that action of this kind on the part of our County Council, if the people could be convinced of the great safety resulting from the use of such milk, would be effective in preventing the loss of many valuable lives to the community. In other districts, particularly in London, some good has been done by the issue of leaflets containing simple instructions with respect to the feeding of infants. This year the infant-mortality rate is 175.373, the average for the past 10 years being 125.287.

Z Y M O T I C D I S E A S E S.

ENTERIC FEVER. Twenty one cases were notified in 1900, and three deaths from this disease were registered. Three cases were removed to the Port Sanitary Hospital.

DIPHTHERIA. Eight cases were notified. Two deaths from this cause.

SCARLATINA. Fifty-nine cases notified. No deaths. Two cases were removed to hospital.

ERYSIPPELAS. Twenty seven cases were notified, and ~~four~~ deaths occurred from this disease.

PURPERAL FEVER. There were two cases of this disease and one death.

MEASLES. A severe epidemic of measles broke out during the late spring and early summer in the Under-Hill district, and to such an

extent did it spread that I considered it necessary to recommend closure of the schools in the affected districts for 14 days from the 30th May. At the end of this period it was found necessary to keep the schools closed for a further period, & they were not re-opened until the 25th June. This epidemic spread from the Under-Hill to the Top-Hill district and finally it was found necessary to close the schools in the latter district from the 6th July to the 30th of the same month.

In each district, at the same time that I wrote to the Council advising school closure, I recommended the Superintendents of the Sunday schools to close these schools also. In the Top-Hill district my recommendation was attended to by all the religious denominations, but under the Hill the Wesleyans and Primitive Methodists kept their schools open although the others were closed. This action caused me to sanction the re-opening of the day schools on the 25th June, a considerably earlier date than was really advisable, as it was felt that no good result could be obtained from the closure of the day schools while the Sunday schools remained open.

Nine deaths from measles were registered.

This epidemic probably took its origin from the boys belong to H.M. Training ships, as cases of measles were admitted to the R.N. Sick Quarters from these ships before any cases appeared among the civil population.

WHOOPIING-COUGH. In the early part of the year this disease was somewhat prevalent, and four deaths from it occurred.

ZYMOTIC-DEATH-RATE. This is the death-rate from the 'seven principal Zymotic diseases' -viz- Small-pox, measles, scarlet fever, diphtheria, whooping-cough, fever - typhus, simple continued and enteric- and diarrhoea. The rate for 1900 is 2.416.

PHTHISIS DEATH-RATE. This is low being .75 per 1,000. The death-rate from tubercular diseases, including phthisis, is 1.416 per 1000

R A I N F A L L.	
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	Inches
January	4.87
February	2.50
March	1.12
April	1.45
May	1.51
June	.70
July	.62
August	1.64
September	.79
October	1.75
November	2.49
December	5.16

Total for the year -	27.52 inches

The heaviest rain-fall in twenty four hours occurred on the 6th January, when no less than 1.48 inches fell, or 5.366 c/o of the total rainfall for the year. *For these figures I am indebted to Mr. W. D. Waugh F.R.S., The Observatory, Portland.*

W A T E R - S U P P L Y

As the Contractors who were employed to carry out the Upwey water-works scheme exceeded their time, the District Council took the work out of their hands in the middle of December, so that it is to be hoped that we shall soon have a constant supply on the Island, instead of the present intermittent one, as an intermittent supply can never be free from danger to the public health.

On Tuesday, the 23rd October, complaints were received with reference to the public water-supply and a sample was forwarded to an analyst for analysis and report. On the 25th October another sample was taken from one of the public standpipes and also sent for analysis.

The following reports were received -

Sample taken from supply pipe at Coastguard station on 23rd
October 1900-

Total solid matter	77 grains per gallon
Free Ammonia	57 parts per million
Albuminoid Ammonia	15
Nitrogen as Nitrites & Nitrates	.065 grains per gallon
Chlorine	16
Degrees of hardness	14
Metals, lead or copper	None

"We have carefully examined the sample of water received from you on the 24th October. As shown by the quantities of Free Ammonia, Albuminoid Ammonia, and Chlorine present, the contamination is a very serious one, probably the result of direct sewage infiltration, and we should consider it a highly dangerous water for drinking purposes. A brownish coloured residue was obtained on evaporation and an offensive odour - not Sulphuretted Hydrogen - was distinctly noticeable."

Sample taken from standpipe at bottom of Bellevue Terrace on
25th October.-

Total dissolved solids	20 grains per gallon
Chlorides equivalent to Chlorine	1.4
Free Ammonia	.112
Albuminoid Ammonia	.025
Nitrates	Present
Nitrites	Distinctly present
Injurious metals	absent.

"The water was cloudy, and on standing gave a considerable deposit. When shaken it emitted an offensive odour."

These results show considerable organic contamination and render the water unfit and unsafe for drinking purposes"

On receiving the reports of the results of the analysis, I at once called the attention of the District Council to the matter. On the 3rd November, accompanied by the Council's Surveyor, I went over the course of the pipes between Portland and Upwey with the view of trying to ascertain whether there was a leakage at any point, and

also to obtain samples at different points so as to localise the source of contamination. No evidence of leakage could be found but samples were taken at four points, one at the shaft, one in Portland, and two at intermediate hydrants. These four samples were submitted to analysis, and the reports received show that they were good, and that their composition was substantially the same. This being the case I shall not take up unnecessary space by detailing them all, but quote the report received on the two from each end of the system; on the one taken at the shaft and the one taken in the Island itself-

Sample taken at Upwey of water pumped directly from the shaft
on 3rd November 1900

Total solid matter	41 grains per gallon
Free Ammonia	None
Albuminoid Ammonia	None
Nitrogen as Nitrites and Nitrates	.04 grains per gallon
Chlorine	2
Degrees of hardness	14
Metals, Lead or Copper	None.

There being an entire absence of Free Ammonia and Albuminoid Ammonia, and but a small quantity of Chlorine present, in our opinion this water may with safety be used for drinking and dietetic purposes"

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Sample taken from a house tap on the Chesil circuit in Portland
on 3rd November 1900

Total solid matter	46 grains per gallon
Free Ammonia	None
Albuminoid Ammonia	None
Nitrogen as Nitrites and Nitrates	None
Chlorine	2 grains per gallon
Degree of hardness	14
Metals, Lead or copper.	None,

" There being an entire absence of Free Ammonia, Albuminoid Ammonia and Nitrogen, and there being but a small quantity of Chlorine present, this water may in our opinion be safely used for drinking and dietetic purposes."

These results showed conclusively that the water-supply was itself of excellent quality, and that the temporary contamination must have been the result of something drawn into the pipes, probably while they were empty, as the result of the intermittent supply.

On the 21st November, the water was again found to be contaminated although not so much so as on the former occasion.

These occurrences naturally gave rise to much anxiety, especially as it was not possible to test the pipes owing to the pumps being defective. As soon as it was possible to do this testing was begun, and it was then found that a serious leakage was taking place somewhere between Wyke and the Ferry Bridge. After being localised, the point of leakage was discovered by the Council's Surveyor, and the defect rectified. The reason that it was not discovered in the first instance was that the water from the leak flowed into an adjoining stream, so that nothing showed on the surface.

D R A I N A G E

Mr. Elford's drainage scheme is being actively proceeded with, so that we may reasonably hope to see the Island drained thoroughly in the near future.

D I S P O S A L O F S E W A G E

Many complaints have been received on account of the unpleasant condition of the atmosphere on the Weston road adjoining the refuse heap belonging to the Council. I understand that the Council have some idea of obtaining a destructor to deal with the refuse, and I should like to impress its members with the necessity there is for such an appliance in Portland. I believe that, after the initial out-lay the cost of maintaining a destructor- if the proper kind

Is selected - is not great and the benefit to be obtained from the public health point of view would be considerable.

D I S I N F E C T I O N .

I should like to urge upon the Council the advisability of undertaking the disinfection of houses where cases of infectious disease have recently been present. There can be no objection to the Council undertaking this if liquified sulphurous acid gas is employed, as there is no danger of fire resulting from the carelessness of minor officials, as was the case when sulphur burning was the method employed. At present the disinfection, which is necessarily done by the inhabitants themselves, is of the most perfunctory description, although there is some improvement since they were supplied by the Council with tubes of liquified sulphurous acid, as recommended by me in the latter part of the year.

It is also advisable that a disinfecting apparatus for the treatment of infected clothing should be bought and maintained by the Council. There is already a Washington Lyon's disinfecter - one of the best disinfectors in the market - at the R.N. Sick Quarters, and in the event of the Council not wishing to obtain a disinfecter of their own, may I suggest that the Admiralty might be approached with the view of ascertaining under what terms and conditions the use of this apparatus might be reserved for the Council on, say, one day a week.

NUISANCES. A large number of these have been attended to and abated during the past year.

I have to thank Mr. Elford, the Council's Surveyor, for his helpful assistance during the year in his capacity as Sanitary Inspector.

David J. Harman M.D., D.P.H.
M.C.H. Portland

